City of Tillamook, Oregon

Draft Methodology Report for a Stormwater System Development Charge

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FCS GROUP
4380 SW Macadam Ave. Suite 220
Portland, OR 97239
T: 503.841.6543 | F: 503.841.6573

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SECTION I: BACKGROUND

This section describes the policy context and project scope upon which the body of this report is based.

A. POLICY

Oregon Revised Statutes (ORS) 223.297 to 223.314 authorize local governments to establish system development charges (SDCs). These are one-time fees on new development, and they are paid at the time of development. SDCs are intended to recover a fair share of the cost of existing and planned facilities that provide capacity to serve future growth.

ORS 223.299 defines two types of SDC:

- A reimbursement fee that is designed to recover "costs associated with capital improvements already construct, or under construction when the fee is established, for which the local government determines that capacity exists"
- An improvement fee that is designed to recover "costs associated with capital improvements to be constructed"

ORS 223.304(1) states, in part, that a reimbursement fee must be based on "the value of unused capacity available to future system users or the cost of existing facilities" and must account for prior contributions by existing users and any gifted or grant-funded facilities. The calculation must "promote the objective of future system users contributing no more than an equitable share to the cost of existing facilities." **A reimbursement fee may be spent on any capital improvement related to the system for which it is being charged** (whether cash-financed or debt-financed) and on the costs of compliance with Oregon's SDC law.

ORS 223.304(2) states, in part, that an improvement fee must be calculated to include only the cost of projected capital improvements needed to increase system capacity for future users. In other words, the cost of planned projects that correct existing deficiencies or that do not otherwise increase capacity for future users, may not be included in the improvement fee calculation. An **improvement fee may be spent only on capital improvements (or portions thereof) that increase the capacity of the system** for which it is being charged (whether cash-financed or debt-financed) and on the costs of compliance with Oregon's SDC law.

B. PROJECT

The City of Tillamook completed a Storm Drainage Master Plan in 2004, with a major update in 2012. As part of the Master Plan Update, the City contracted with FCS GROUP to prepare a Storm Drainage SDC Methodology Report.

We approached this project as a series of three steps:

- **Framework for Charges**. In this step, we worked with City staff and consulting engineer to identify and agree on the approach to be used and the components to be included in the analysis.
- **Technical Analysis**. In this step, we worked with City staff and consulting engineer to isolate the recoverable portion of planned facility costs and calculate draft SDC rates.
- **Draft Methodology Report Preparation**. In this step, we documented the calculation of the draft SDC rates included in this report.

SECTION II: METHODOLOGY

This section provides a non-numeric overview of the calculations that result in SDC rates.

A. REIMBURSEMENT FEE COST BASIS

In order for a reimbursement fee to be collected and calculated, excess (i.e., not currently utilized) capacity must be available to serve future growth. The current estimated value of Tillamook's excess capacity in the stormwater system was based on the actual local City cost of stormwater capacity projects. **The actual cost incurred by the City of Tillamook for capacity-increasing stormwater facilities and related services is the recommended basis of the reimbursement fee.** The eligible reimbursement fee cost basis is determined by adjusting actual capital facility expenditures to reflect the amount of capacity that is available at the time the Tillamook Stormwater SDC methodology report is likely to be adopted (adoption expected during Winter 2012/13).

B. IMPROVEMENT FEE COST BASIS

The improvement fee calculation is based on a specific list of planned capacity-increasing capital improvements. The percentage of each project that is attributable to growth is determined, and the improvement fee-eligible cost is calculated by multiplying the total project cost by the percent that is growth-related. This approach works best where a detailed and up-to-date master plan or project list is available and the benefits of projects can be readily apportioned between growth and current users.

Ideally, the most directly applicable measure of capacity demand should be used as the basis for allocation. The prior *Tillamook Stormwater Master Plan (2004)*, and the current *Tillamook Stormwater Master Plan* update (2012) include a list of stormwater facility improvements that are needed to address local storm drainage issues and future growth needs. The long-range capital improvement project list has been adjusted to account for non-capacity projects and non-local funding sources. **This list of capital projects, and associated growth allocations, is the recommended basis for the improvement fee.**

C. COMPLIANCE COSTS

ORS 223.307(5) authorizes the expenditure of SDCs on "the costs of complying with the provisions of ORS 223.297 to 223.314, including the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures." To avoid spending monies for compliance that might otherwise have been spent on growth-related projects, **this methodology report assumes that local City compliance costs will equate to 4.1% of the eligible SDC improvement-related facility costs** (equates to the average compliance fee collected for Oregon jurisdictions per the results of the League of Oregon Cities, SDC Survey, 2010).

D. SUMMARY

In general, SDC rates are calculated by adding the reimbursement fee component, improvement fee component, and compliance cost component. Each component is calculated by dividing the eligible cost by the growth of units of demand. Equivalent Service Units (ESU) typically form the basis for calculating stormwater SDCs and rates. An ESU is intended to represent the amount of impervious surface area (e.g., rooftops, driveways, parking areas, etc.) that is added per typical single family detached dwelling unit. For the City of Tillamook, it is assumed that one single family detached dwelling equates adds an average of 2,500 square feet of impervious surface area, and equates to 1 ESU. For non-residential development, the applicant or City will need to estimate the net increase in impervious surface area and resulting ESUs from the proposed new development.

The methods applied in this report result in a total Tillamook stormwater SDC of $1,293 per ESU, as indicated in **Table 1**.

Section III of this report provides detailed calculations related to growth in demand, which is the denominator in the SDC equation. **Section IV** of this report provides detailed calculations on eligible costs, which is the numerator in the SDC equation.

Table 1 Tillamook Stormwater SDC Summary

Reimbursement Fee				**Source Notes**
	Net Cost Unused Capacity	$	51,105	[1]
	Growth to End of Planning Period		575.0	Equivalent Service Units [2]
	Reimbursement Fee	**$**	**89**	per ESU
Improvement Fee				
	Capacity Expanding CIP	$	662,836	[3]
	Growth to End of Planning Period		575.0	Equivalent Service Units [2]
	Improvement Fee	**$**	**1,153**	per ESU
Total System Development Charge				
	Reimbursement Fee	$	89	per ESU
	Improvement Fee	$	1,153	per ESU
	SDC Subtotal	$	1,242	per ESU
	plus: Compliance Fee (@4.1%)	$	51	per ESU [4]
	Total SDC	**$**	**1,293**	**per ESU**

NOTES	
[1] Based on calculation provided in Table 5.	
[2] One equivalent service unit (ESU) equals 2,500 square feet of impervious surface area.	
	see calculation on Table 2.
[3]	Based on calculation provided in Table 3.
[4]	Based on the average for Oregon jurisdictions that charge compliance fees as part of SDCs; per League of Oregon Cities, SDC Survey, 2010.

SECTION III: GROWTH CALCULATION

This section provides detailed calculations related to growth in demand, which is the denominator in the SDC equation.

A. RELEVANT TYPES OF GROWTH

The potential Tillamook stormwater SDCs would be based on projected "equivalent service units" or ESUs. ESUs are intended to represent the amount of impervious surface area (e.g., rooftops, driveways, parking areas, etc.) that are added per typical single family detached dwelling unit. It is assumed that one single family detached dwelling equates adds an average of 2,500 square feet of impervious surface area, and equates to one ESU.

This stormwater SDC methodology includes calculations that identify existing and future projected ESUs in the City of Tillamook. To calculate existing ESUs, data regarding residential dwelling unit distributions was obtained from the *U.S. Census, American Community Survey (2006-2010)* estimates for the City of Tillamook. Additional local data were applied to understand the ratio between residential and non-residential (private) developed land area, using assumptions set forth in the *Tillamook Comprehensive Plan (2012).* **Table 2** indicates that there are an estimated 2,248 dwelling units in the City of Tillamook, which equates to approximately 1,387.1 ESUs.

Table 2 Residential ESUs in City of Tillamook, Existing Conditions

a	b	c	d	e	f	g
Housing Type	Percent Allocation	Total Dwelling Units	Avg. Housing Units Per acre	Dwellings Per ESU Conversion Factors	Avg. Impervious SF Per DU	Existing Residential ESUs (d/f)
1 Family, Detached	50.6%	1,137	5.5	1	2,500	1,137.5
1 Family, Attached	4.5%	101	14	2.5	982	39.7
Mobile Home	3.5%	79	16	2.9	859	27.0
Multifamily	41.4%	931	28	5.1	491	182.8
Total	**100.0%**	**2,248**				**1,387.1**

Source: derived from current Census estimates for City of Tillamook and land use density assumptions.

The *Tillamook Comprehensive Plan (2012)* indicates that approximately 65% of the developed land area in Tillamook is residential and 35% is non-residential. Therefore, it is assumed that there are 2,134 total ESUs in the City of Tillamook, of which 1,387.1 are residential and 746.9 are non-residential ESUs, as indicated in **Table 3**.

B. GROWTH IN EQUIVALENT SERVICE UNITS

Having established the relevance of residential ESUs, we now quantify expected growth rates.

B.1 Expected Growth Levels

Based on the current projected population growth projections contained in the *Tillamook Comprehensive Plan (2012)*, ESUs in Tillamook are projected to increase by 575 over the next 20 years, as shown in **Table 3.** The rate of increase in ESUs assumes development occurs within the Tillamook Urban Growth Boundary (UGB), and equates to 1.2% annually (average growth rate) over the forecast period.

B.2 Calculating the Growth Share

The share of future stormwater facilities that are planned for capacity upgrades to serve future growth needs is determined to be 21%, as shown in **Table 3.**

Table 3 Existing and Projected ESUs in City of Tillamook

Current and future development was estimated in the following manner:	
Estimate of Current Development within Service Area	
Residential Stormwater ESUs [1]:	1,387.1
Est. Residential Share of Stormwater ESUs [2]	65%
Est. Non-Residential Share of Stormwater ESUs [2]	35%
Current Stormwater ESUs within City:	2,134.0
Estimate of Future Development within Service Area	
Forecasted Avg. Annual Growth Rate [3]:	1.20%
Study Period (Years) [3]:	20
Future Stormwater ESUs within City:	2,708.9
Growth in Stormwater ESUs:	**575.0**
ESU Growth Share (Growth share of Future ESUs)	**21%**

Notes:

[1] Derived from current Census estimates for households in the City of Tillamook (see Appendix A). One equivalent service unit (ESU) equals 2,500 square feet of impervious surface area.

[2] Source: allocation of residential and non-residential ESUs are derived from the City of Tillamook Land Use acre estimates, included in Tillamook Comprehensive Plan, Draft 2012.

[3] Source: growth rate based on population growth forecast per Tillamook Comprehensive Plan, 2012.

SECTION IV: COST CALCULATION

This section provides detailed calculations on eligible costs, which is the numerator in the SDC equation.

A. REIMBURSEMENT FEE

The eligible reimbursement cost basis is based on completed local stormwater facilities that are deemed to have excess capacity at the time the Tillamook stormwater SDC is adopted. This includes projects now under construction. As indicated in **Table 4**, the reimbursement fee cost basis amounts to $51,105. The reimbursement fee reflected previously in Table 1, equates to $89/ESU. This is determined by dividing the reimbursement fee cost basis ($51,105) by the projected increase in ESUs (575) that are expected to occur in Tillamook over the next 20 years.

Table 4 Tillamook Stormwater Reimbursement SDC Cost Basis

Project Description (1)	Original Project Cost (1)	% Capacity Remaining (2)	% City Cost Share (3)	Unused Capacity Value
Phase 1 3rd Street Marolf Loop-WR Loop project	$577,600	25%	20%	$28,880
SW Master Plan & SDC Work Activities	$22,225	n/a	100%	$22,225
Total	**$22,225**			**$51,105**
Less: Stormwater Utility Revenue Funding				$0
Less: Other/Revenues or Contributions				$0
Total Reimbursement SDC Fee-Eligible Costs				**$51,105**

NOTES

(1) Reflects projects are currently under construction or in process.

(2) Additional capacity serves only future development. Source: NW Engineers estimates.

(3) City estimates.

B. IMPROVEMENT FEE

The projects listed in the long-range stormwater capital improvement plan that are eligible for SDC funding can only to the extent that the projects will benefit future users (rather than cure an existing deficiency). As indicated in **Table 5**, the total capital cost for the long range stormwater facility projects and related service/planning costs equates to $2,484,813, and the total improvement fee-eligible share of local stormwater facilities is $662,836.

To calculate the improvement fee by unit of development, the following calculations were made.

Fee-Eligible Cost	÷	Increase In ESUs	=	Fee-Eligible Cost Per ESU

The stormwater improvement fee-eligible cost per ESU is summarized previously in Table 1. To calculate the improvement fee, the eligible cost ($662,836) is divided by the future increase in ESUs

(575) to obtain the improvement fee of $1,153 per ESU. Please note that all of the projects listed below in Table 5 are located within the existing Tillamook city limits, with the exception of "project 3" and "project f" which are located in or adjacent to the Tillamook Urban Growth Boundary. The city/county Intergovernmental Agreement (IGA) may need to be revised for the county to collect the proposed stormwater SDCs in UGB areas that have not yet been annexed into the city.

Table 5 Tillamook Stormwater Improvement Projects and Capital Facility Costs

Proj. #	Project Description (1)	Project Cost (1)	% Capacity Increasing (2)	SDC Eligible Cost
1	Phase 2 3rd Street Marolf Loop-WR Loop project	$258,800	50.0%	$129,400
2	Dept. of Forestry to WR Loop Int. project	$242,850	25.0%	$60,713
3	3rd St./Schild Rd. project (3)	$286,275	25.0%	$71,569
4	Brookfield Line-Marolf Loop to Brookfield Meadow	$668,550	25.0%	$167,138
5	Brookfield Storm Sewer	$65,400	21.2%	$13,881
6	Marolf Loop Ditch Rehabilitation	$88,500	21.2%	$18,784
a	Lower Williams Ave. Sewer Replacement	$276,938	21.2%	$58,779
b	Birch Ave. Outfall project	$9,000	21.2%	$1,910
c	Front/Elm Sewer Replacement	$173,250	21.2%	$36,772
d	Miller Ave./Holden Creek Culvert Replacement	$250,000	21.2%	$53,062
e	8th St. @ Laurel Sewer project	$95,250	21.2%	$20,217
f	Fred Meyer Area Ditch project (3)	$50,000	21.2%	$10,612
	Future SW Master Plan & SDC Update	$20,000	100.0%	$20,000
Total		**$2,484,813**		**$662,836**
plus: SDC Credits Outstanding				n/a
less: Ending Improvement SDC Fund Balance				n/a
Total Improvement Fee-Eligible Costs				**$662,836**

NOTES

(1)	Projects 1-6 are from the Tillamook SWMP = Storm Drainage Master Plan Update, May 2012, by NW Engineers. Notre, all projects, unless otherwise noted, are located within Tillamook city limits.
	Projects a-f are from the Tillamook 2004 SWMP.
(2)	Additional capacity serves only future development. Source: NW Engineers estimates; or growth share calcuations (whichever is greatest).
(3)	These projects are located outside existing Tillamook city limits, within or adjacent to the UGB.

C. COMPLIANCE FEE

The Stormwater compliance fee is calculated based on a fixed percentage of the SDC eligible costs for the improvement and reimbursement fee elements. As indicated previously in Table 1, the compliance fee is assumed to equate to 4.1% of the combined improvement SDC ($1,153) and the reimbursement fee ($89), and equates to $51 per ESU.

SECTION V: SUMMARY

This section provides a detailed calculation of the residential and non-residential SDCs.

A. SDC COST PER UNIT OF DEVELOPMENT

Table 6 displays the total Stormwater SDC cost per ESU, including the reimbursement fee, improvement fee and compliance fee components.

Table 6

Tillamook Stormwater SDC Cost Per Unit of Development

Reimbursement Fee				**Source Notes**
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[2] One equivalent service unit (ESU) equals 2,500 square feet of impervious surface area. see calculation on Table 2.

[3] Based on calculation provided in Table 3.

[4] Based on the average for Oregon jurisdictions that charge compliance fees as part of SDCs; per League of Oregon Cities, SDC Survey, 2010.

B. CREDITS, EXEMPTIONS AND DISCOUNTS

The Tillamook SDC administrative procedures will need to establish local policies for issuing credits and exemptions, annual adjustments, and other administrative procedures.

(1) Credits

A credit is a reduction in the amount of the SDC for a specific development. The Oregon SDC Act requires that credit be allowed for the construction of a "qualified public improvement" which (1) is required as a condition of development approval, (2) is identified in the City's capital improvements program, and (3) either is not located on or contiguous to property that is the subject of development approval, or is located on or contiguous to such property and is required to be built larger or with greater capacity than is necessary for the particular development project.

The credit for a qualified public improvement may only be applied against an SDC for the same type of improvement (e.g., a stormwater improvement can only be used for a credit for a future stormwater SDC), and must be granted only for the cost of that portion of an improvement which exceeds the minimum standard facility size or capacity needed to serve the particular project up to the amount of the improvement fee. For multi-phase projects, any excess credit may be applied against SDCs that accrue in subsequent phases of the original development project.

In addition to these required credits, the City may, if it so chooses, provide a greater credit, establish a system providing for the transferability of credits, provide a credit for a capital improvement not identified in the City's SDC Capital Improvements Plan, or provide a share of the cost of an improvement by other means (i.e., partnerships, other City revenues, etc.).

(2) Exemptions

The City may "exempt" specific classes of development (i.e., minor additions, etc.) from the requirement to pay stormwater SDCs.

(3) Discounts

The City may "discount" the amount of the SDC by reducing the portion of growth-required improvements to be funded with SDCs. Alternatively, the City may decide to charge only a percentage (i.e., 50%, 75%, etc.) of the SDC rates required to fund identified growth-related facility costs. Because discounts reduce SDC revenues, they increase the amounts that must come from other sources, such as general fund contributions in order for the City to maintain levels of service.

C. INDEXING

Oregon law (ORS 223.304) also allows for the periodic indexing of system development charges for inflation, as long as the index used is:

> "(A) A relevant measurement of the average change in prices or costs over an identified time period for materials, labor, real property or a combination of the three;
>
> (B) Published by a recognized organization or agency that produces the index or data source for reasons that are independent of the system development charge methodology; and
>
> (C) Incorporated as part of the established methodology or identified and adopted in a separate ordinance, resolution or order."

We recommend that the City of Tillamook index its charges to the **Engineering News Record** (ENR) Construction Cost Index (CCI) for the City of Seattle, and adjust the charges annually as per that index. There is no comparable Oregon-specific index.

D. SUMMARY AND COMPARISON

Table 7 summarizes SDC calculations for prototypical residential and non-residential development types. The analysis assumes an average of 2,500 SF of impervious surface area per single family dwelling unit, and estimates of impervious surface area for non-residential development types based on typical development density and impervious service area estimates for a new single family home, multifamily apartment building (24 units), commercial/office building (two levels with 8,000 total square feet of floor area), and an industrial building (one level with 15,000 square feet of floor area).

Table 7 Current and New Stormwater SDCs in Tillamook

Development Type	Current StormwaterSDC	Estimated New Stormwater SDC *
Residential: Single family per Dwelling Unit (1 dwelling unit)	NA	$1,293
Residential: Multifamily Development (based on 24 unit apartment building = 8.25+/- ESUs)	NA	$10,667
Commercial/Office building (based on 8,000 SF two-level building with surface parking = 7+/- ESUs)	NA	$9,051
Industrial Building (based on 15,000 SF 1-level building with surface parking = assumes 12+/- ESUs)	NA	$15,516

** Based upon ESU conversion factors shown in Table 2 of this report. NA = not applicable.*

Table 8 provides a relative comparison among various Oregon jurisdictions for all types of SDCs. As indicated in the table, Tillamook's potential SDC (with the new potential stormwater SDC) would still place it among the lowest in Oregon among jurisdictions that charge SDCs.

Table 8 Comparison of SDCs: Selected Oregon Jurisdictions (per single family dwelling)

Jurisdiction	Water	Waste-water	Storm-water	Parks	Trans-portation	TOTAL SDCs
Ashland	$5,208	$1,614	$490	$1,041	$2,044	**$10,397**
Bend	$4,520	$2,840	NA	NA	$4,500	**$11,860**
Brookings	$1,902	$8,591	$837	$1,378	$1,209	**$13,917**
Hood River	$3,883	$1,508	$650	$2,458	$705	**$9,204**
Madras	$771	$4,634	$193	$1,639	$3,240	**$10,477**
Sisters	$2,053	$2,968	NA	$613	$1,016	**$6,650**
Stayton	$2,485	$3,538	NA	$2,284	$2,562	**$10,869**
The Dalles	$2,317	$1,789	$342	NA	$1,500	**$5,948**
Tillamook - existing	**$3,149**	**$1,225**	**NA**	**NA**	**NA**	**$4,374**
Tillamook - potential	**$3,149**	**$1,225**	**$1,293**	**NA**	**NA**	**$5,667**
Troutdale	$1,345	$4,495	$920	$7,237	$730	**$14,727**
West Linn	$5,803	$2,855	$994	$8,712	$6,524	**$24,888**

Source: League of Oregon Cities, SDC Survey, Fall 2010. NA = not applicable.

[1] The SDC s shown in this table do not reflect other potential local or regional construction excise taxes or permit fees.

[2] Also reflects compliance fees for areas that charge them.

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